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ENGINEERING EVALUATION / FACT SHEET

BACKGROUND INFORMATION

Application No.:	R13-1336F
Plant ID No.:	023-00017
Applicant:	Vindex Energy Corporation
Facility Name:	Dobbin Ridge Preparation Plant
Location:	Bismarck, Grant County
SIC Codes:	1222 (Bituminous Coal & Lignite - Underground) 1221 (Bituminous Coal & Lignite - Surface)
NAICS Codes:	212112 (Bituminous Coal Underground Mining) 212111 (Bituminous Coal and Lignite Surface Mining)
Application Type:	Modification
Received Date:	April 3, 2012
Engineer Assigned:	Dan Roberts
Fee Amount:	$2,000
Date Received:	April 6, 2012
Complete Date:	June 8, 2012
Applicant Ad Date:	April 10, 2012
Newspaper:	*Grant County Press*
UTM's:	Easting: 646.0 km Northing: 4341.0 km Zone: 17
Description:	Modification to replace the existing 40 ton capacity lime bin B3 with limestone sand open storage pile LSSP, limestone sand hopper LSH, conveyors LSBC and LSRS, and the associated trucking. In addition, an error in the haulroad calculations for magnetite trucks per hour is being corrected by reducing the maximum trucks per hour from 4 to 2.

BACKGROUND

Vindex Energy Corporation is a subsidiary of Arch Coal out of St. Louis, Missouri. Vindex Energy Corporation is currently operating their existing Dobbin Ridge Preparation Plant under permit R13-1336E approved on October 30, 2012.

This facility was formerly owned by Buffalo Coal Company and named the Mt. Storm A-34 Preparation Plant.

Modification to replace the existing 40 ton capacity lime bin B3 with limestone sand open storage pile LSSP, limestone sand hopper LSH, conveyors LSBC and LSRS, and the associated trucking. In addition, an error in the haulroad calculations for magnetite trucks per hour is being corrected by reducing the maximum trucks per hour from 4 to 2.

DESCRIPTION OF PROCESS

Main Plant Raw Coal Circuit

Raw coal is trucked to the plant at maximum rates of 700 TPH and 4,380,000 TPY and deposited into open storage pile OS1 or directly into feeder bins B1 and B2. Raw coal from open storage pile OS1 is transferred by front endloader to bins B1 and B2. From bins B1 and B2, the raw coal in transferred via belt conveyor BC1 to new replacement rotary breaker RB1. The reject from new replacement rotary breaker RB1 is transferred by conveyor BC2 to breaker reject open storage pile OS2. The crushed coal from new replacement rotary breaker RB1 is transferred at maximum rates of 500 TPH and 4,380,000 TPY via belt conveyor BC3 to the deslime screen. Raw coal that passes through the deslime screen drops to conveyor BC5 which transfers it to the wet wash circuit. The oversize raw coal from the deslime screen will go to crusher CR1, which will then be crushed and re-screened in screen SC1with the pass through going to conveyor BC5 which transfers it to the wet wash circuit and the oversized at this point becoming refuse and dropping to conveyor BC4 and transferred to the reject open storage pile OS4.

Two 50 ton magnetite bins MB1 and MB2 receive magnetite pneumatically from trucks. Bins MB1 and MB2 are fitted with filter vents with a 95% control efficiency. From bins MB1 and MB2, fully enclosed screw conveyors SC1 and SC2 convey the magnetite to the wet wash circuit.

Refuse Circuit

Trucks will transport limestone sand to the facility by trucks where it will be dumped to new open storage pile LSSP. An endloader will transfer the limestone sand to new hopper LSH (PE). Hopper LSH will drop the limestone sand to new conveyor LSBC, which will transfer it to new conveyor LSRS. Conveyor LSRS will transfer the limestone sand and drop it onto existing refuse conveyor BC10 with the fine refuse from the wet wash circuit. Also, the fine refuse material will be very wet (approximately 14% water).

From the wet wash circuit, the fine refuse is dropped to conveyor BC10 where limestone sand is coated on it during the transfer in order to help prevent acid drainage from the refuse disposal area. Conveyor BC10 transfers the fine refuse and added limestone sand to refuse bin B4, which loads it to trucks for transport to the refuse disposal area.

Clean Coal Circuit

From the wet wash circuit, the midds clean coal is dropped to conveyor BC11A and transferred to conveyor BC11. Conveyor BC11 can drop the midds clean coal to a stacking tube and into open storage pile area OS5 or to conveyor BC12, which will transfer it to rail car loadout

conveyor BC17 and then into rail car loadout bin B5.

From the wet wash circuit, clean coal is also dropped to conveyor BC13, which transfers it directly to open storage pile area OS5, conveyor BC14 or conveyor BC15. Conveyors BC14 and BC15 transfer the clean coal to stacking tubes and into open storage pile area OS5.

Clean coal is reclaimed from open storage pile area OS5 via underground reclaim feeders to conveyor BC16. Conveyor BC16 transfers the clean coal to conveyor BC 16A, conveyor BC17 and then into rail car loadout bin B5, which loads it to rail cars or trucks at maximum rates of 1,600 TPH and 3,500,000 TPY.

Raw Coal Breaker Circuit

The raw coal breaker circuit has a permitted maximum feed rate of 450 TPH and 1,680,000 TPY, which is included in the total facility throughput of 4,380,000 TPY. Trucks deliver the raw coal to feeder bins BB1 and BB2. From bins BB1 and BB2, the raw coal is dropped to conveyor BBC1, which transfers it to rotary breaker BRB1. From rotary breaker BRB1, the oversize reject is transferred by conveyor BBC4 to reject open storage pile OS6 and the crushed material is dropped to conveyor BBC5, to conveyor BBC6 and then to open storage pile OS3. The stockpiled raw coal is reclaimed by an endloader and loaded to trucks for shipment following the same route as the main plant.

Proposed Portable Crushing Plant

The proposed portable crusher was built by Eagle Iron Works in 1977. The unit can process coal at 200 tons per hour and uses a diesel engine CENG, E2. Coal from existing open storage pile area OS3/N will be transferred by endloader to hopper CH1/PE at transfer point CTP1/MD. From CH1/PE, the coal is transferred to conveyor CBC1/1 at transfer point CTP2/PE and then to crusher CR2/FE at transfer point CTP3/PE. From crusher CR2/FE, sized coal is transferred to conveyor CBC2/N at transfer point CTP4/PE and then back to open storage pile OS3/N or to portable screen hopper SH1/PE at transfer point CTP5/MD. An endloader can then transfer the sized coal to trucks at transfer point CTP6/MD.

Proposed Portable Screening Plant

The proposed portable screen is a Terex Finley 693 Supertrak which can process coal at 200 tons per hour and uses an MSHA approved EPA Tier 2 diesel engine SENG, E1. Coal is transferred by endloader from existing open storage pile area OS3/N or from the portable crusher conveyor CBC2/N to hopper SH1/PE, which is equipped with a bar grate, at transfer point STP1/MD. From SH1/PE, the coal is transferred to conveyor SBC1/PE at transfer point STP2/PE to conveyor SBC2/N at transfer point STP3/PE and then to screen PSC1/FE at transfer point STP4/PE. From screen PSC1/FE, screened coal is transferred using one of the following sequences: to conveyor SBC3/N at transfer point STP5/PE and then back to open storage pile OS3/N at transfer point STP6/MD; to conveyor SBC4/N at transfer point STP7/PE and then back to open storage pile OS3/N at transfer point STP8/MD; or to conveyor SBC5/N at transfer point STP9/PE and then back to open storage pile OS3/N at transfer point STP10/MD. An endloader can then transfer the sized coal to trucks at

transfer point STP11/MD.

There are no throughput changes proposed for the preparation plant or facility trucking as a result of the addition of the portable screen or portable crusher. The portable screen or portable crusher will initially be located in the area of existing open storage pile OS3/N. These units are portable and may be relocated to other existing open storage pile areas.

The facility shall be constructed and operated in accordance with the following equipment and control device information taken from permit applications R13-1336F, R13-1336E, R13-1336D, R13-1336C, R13-1336B, R13-1336A and R13-1336 and any amendments thereto:

Equip-ment ID #	Date of Construction, Reconstruction or Modification [1]	Emission Unit Description	Design Capacity		Control Device [2]
			TPH	TPY	
Main Plant Raw Coal Circuit					
OS1	M 2004 C 1984	Raw Coal Open Storage Pile - 133,600 ton capacity - 243,000 ft^2 base area - receives raw coal from trucks, stores it and then an endloader transfers it to B1 or B2	700	4,380,000	N
B1	M 2004 C 1984	Truck Dump Bin - 50 ton capacity - receives raw coal from trucks or OS1 via an endloader and then drops it to BC1	700	4,380,000 combined	PE
B2	M 2004 C 1984	Truck Dump Bin - 50 ton capacity - receives raw coal from trucks or OS1 via an endloader and then drops it to BC1	700		PE
BC1	M 2004 C 1984	Raw Coal Belt Conveyor - receives raw coal from B1 and B2 and transfers it to RB1	700	4,380,000	PE
RB1	C 2012*	Raw Coal Rotary Breaker - 1977 McNally 10' x 16' Rotary Breaker - receives raw coal from BC1, crushes it from +12" x 0 to 6" x 0 and then drops the crushed coal to BC3 and reject to BC2 (*Replaced a 1984 IMCO Model 816 8' x 16' Rotary Screen (rotary screen is synonymous with rotary breaker))	700	4,380,000	FE
BC2	M 2004 C 1984	Raw Coal Belt Conveyor - receives reject from RB1 and transfers it to OS2	200	1,752,000	PE
OS2	M 2004 C 1984	Reject Open Storage Pile - 1,100 ton capacity - 2,500 ft^2 base area - receives reject from BC2, stores it and then an endloader transfers it to trucks	200	1,752,000	N
BC3	M 2004 C 1984	Raw Coal Belt Conveyor - receives crushed raw coal from RB1 and transfers it to the Deslime Screen (3,000 gallons per minute), which drops the oversize to CR1 and the pass through to BC5 (see below)	500	4,380,000	PE
Deslime Screen	C 2009	Wet Raw Coal Screen - 3,000 gallon per minute water flow - receives crushed raw coal from BC3, classifies it and then drops it to BC5 (see below) or CR1	500	4,380,000	FE
CR1	M 2004 C 1984	Raw Coal Crusher - Harrison Handling Accelerator - receives oversized raw coal from the BC3 via the Deslime Screen (3,000 gallons per minute), crushes it from +1 ½" to +1 ½" x ½" and then drops it to SC1	500	4,380,000	FW
SC1	C 2009	Double Deck Raw Coal Screen - receives crushed raw coal from CR1, classifies it and then drops the sized coal to BC5 and the oversize reject to BC4	500	4,380,000	FE

Equip-ment ID #	Date of Construction, Reconstruction or Modification	Emission Unit Description	Design Capacity		Control Device [2]
			TPH	TPY	
BC4	M 2004 C 1984	Reject Belt Conveyor - receives oversize reject from SC1 and transfers it to OS4	50	438,000	PE
OS4	M 2004 C 1984	Reject Open Storage Pile - 1,100 ton capacity - 2,500 ft^2 base area - receives reject from BC4, stores it and then an endloader transfers it to BC5	50	438,000	N
BC5	M 2004 C 1984	Raw Coal Belt Conveyor - receives sized raw coal from the Deslime Screen (3,000 gallons per minute) and SC1 and transfers it to the wet wash circuit	500	4,380,000	PE
Raw Coal Breaker Circuit					
BB1	M 2004 C 1984	Truck Dump Bin - 50 ton capacity - receives raw coal from trucks and then drops it to BBC1	450	1,680,000 combined	PE
BB2	M 2004 C 1984	Truck Dump Bin - 50 ton capacity - receives raw coal from trucks and then drops it to BBC1	450		PE
BBC1	M 2004 C 1984	Belt Conveyor - receives raw coal from the BB1 and BB2 and transfers it to BRB1	450	1,680,000	PE
BRB1	M 2004 C 1984	Rotary Breaker - Indiana Steel Breaker - receives raw coal from BBC1, crushes it from 10" x 1½" to +1 5/8" x 0 and then drops the crushed coal to BBC6 and the reject to BBC4	450	1,680,000	FE
BBC4	M 2004 C 1984	Belt Conveyor - receives reject from BRB1 and transfers it to OS6	50	438,000	PE
OS6	M 2004 C 1984	Reject Open Storage Pile - 4,700 ton capacity - 5,300 ft^2 base area - receives reject from BBC4, stores it and then an endloader transfers it to trucks	50	438,000	N
BBC5	M 2004 C 1984	Belt Conveyor - receives crushed raw coal from BRB1and transfers it to BBC6	400	1,680,000	PE
BBC6	M 2004 C 1984	Belt Conveyor - receives crushed raw coal from BBC5 and transfers it to OS3	400	1,680,000	PE
OS3	M 2004 C 1984	Raw Coal Open Storage Pile - 120,000 ton capacity - 73,300 ft^2 base area - receives raw coal from trucks and crushed raw coal from BBC6, stores it and then an endloader transfers it to trucks, CH1 (see Portable Crusher Circuit below) or SH1 (see Portable Screen Circuit below)	400 in 500 out	2,994,000	N
Portable Crusher Circuit					
CH1	C 2012	Hopper - 10 ton capacity - receives direct ship coal from OS3 (see Raw Breaker Circuit above) via an endloader and drops it to CBC1	200	300,000	PE
CBC1	C 2012	Portable Crusher Belt Conveyor - receives direct ship coal from CH1 and transfers it to CR2	200	300,000	N
CR2	C 2012	Eagle Iron Works Portable Crusher - receives direct ship coal from CBC1, crushes it from 6" x 0 to 1 ½" x 0 and then drops it to CBC2	200	300,000	FE
CBC2	C 2012	Portable Crusher Belt Conveyor - receives crushed direct ship coal from CR2 and transfers it back to OS3 (see Raw Breaker Circuit above) or SH1 (see Portable Screen Circuit below)	200	300,000	N
CENG or E2	Man. 1977	Diesel Engine - 60 HP maximum - 1.15 gallons/hour fuel usage - 0.15 MMBtu/hour maximum fuel input	-----	-----	N
Portable Screen Circuit					

Equip-ment ID #	Date of Construction, Reconstruction or Modification[1]	Emission Unit Description	Design Capacity		Control Device[2]
			TPH	TPY	
SH1	C 2012	Hopper - 10 ton capacity - receives direct ship coal from OS3 (see Raw Breaker Circuit above) via an endloader or CBC2 (see Portable Crusher Circuit above) and drops it to SBC1	200	300,000	PE
SBC1	C 2012	Portable Screen Belt Conveyor - receives direct ship coal from SH1 and transfers it to SBC2	200	300,000	PE
SBC2	C 2012	Portable Screen Belt Conveyor - receives direct ship coal from SBC1 and transfers it to PSC1	200	300,000	N
PSC1	C 2012	Terex Finley 693 Supertrak Portable Screen - receives direct ship coal from SBC2, classifies it from +2" to 3/4" x 0 and then drops the 3/4" x 0 coal to SBC3, the 2" x 3/4" coal to SBC4 and the +2" coal to SBC5	200	300,000	FE
SBC3	C 2012	Direct Ship Coal Belt Conveyor - receives 3/4" x 0 direct ship coal from PSC1 and transfers it to OS3 (see Raw Breaker Circuit above)	200	300,000	N
SBC4	C 2012	Direct Ship Coal Belt Conveyor - receives +2" x 3/4" direct ship coal from PSC1 and transfers it to OS3 (see Raw Breaker Circuit above)	200	300,000	N
SBC5	C 2012	Direct Ship Coal Belt Conveyor - receives +2" direct ship coal from PSC1 and transfers it to OS3 (see Raw Breaker Circuit above)	200	300,000	N
SENG or E1	Man. 2012	Diesel Engine - Duetz BF4M 2012 - 100 HP maximum - 1.91 gallons/hour fuel usage - 0.25 MMBtu/hour maximum fuel input	-----	-----	N
Magnetite Circuit					
MB1	C 2011*	Magnetite Bin - 50 ton capacity - filter vent with 95% control efficiency - receives magnetite loaded pneumatically from trucks, stores it and then feeds it to SC1 (*Constructed in 2011, but included in a permit in 2012)	-----	600	FE
SC1	C 2011*	Magnetite Screw Conveyor - receives magnetite from MB1 and transfers it to the wet wash circuit (*Constructed in 2011, but included in a permit in 2012)	0.35	600	FE
MB2	C 2011*	Magnetite Bin - 50 ton capacity - filter vent with 95% control efficiency - receives magnetite loaded pneumatically from trucks, stores it and then feeds it to SC2 (*Constructed in 2011, but included in a permit in 2012)	-----	600	FE
SC2	C 2011*	Magnetite Screw Conveyor - receives magnetite from MB2 and transfers it to the wet wash circuit (*Constructed in 2011, but included in a permit in 2012)	0.35	600	FE
Clean Coal Circuit					
BC11A	C 2009	Clean Coal Belt Conveyor - receives midds clean coal from the wet wash circuit and transfers it to BC11	400	3,500,000	PE
BC11	C 2009	Clean Coal Belt Conveyor - receives midds clean coal BC11A and transfers it to OS6 (see below) or BC12	400	3,500,000	PE
BC12	C 2009	Clean Coal Belt Conveyor - receives midds clean coal from BC11 and transfers it to BC17 (see below)	400	3,500,000	PE
BC13	M 2004 C 1984	Clean Coal Belt Conveyor - receives clean coal from the wet wash circuit and transfers it through a chute to BC14, BC15 or directly to OS6	400	3,500,000	PE

Equip-ment ID #	Date of Construction, Reconstruction or Modification [1]	Emission Unit Description	Design Capacity		Control Device [2]
			TPH	TPY	
BC14	M 2004 C 1984	Clean Coal Belt Conveyor - receives clean coal from BC13 and transfers it to OS6 (see below)	400	3,500,000	PE
BC15	M 2004 C 1984	Clean Coal Belt Conveyor - receives clean coal from BC13 and transfers it to OS6 (see below)	400	3,500,000	PE
OS5	M 2004 C 1984	Clean Coal Open Storage Pile with Three Stacking Tubes - 68,000 ton capacity - 62,000 ft^2 base area - receives clean coal from BC11, BC13, BC14 and BC15, stores it and then underground feeders reclaim it to BC16	400 in 1,600 out	3,500,000	N
BC16	M 2004 C 1984	Clean Coal Belt Conveyor - receives clean coal from OS5 via underground feeders and transfers it to BC16A	1,600	3,500,000	PE
BC16A	C 2009	Clean Coal Belt Conveyor - receives clean coal from BC16 and transfers it to BC17	1,600	3,500,000	PE
BC17	M 2004 C 1984	Clean Coal Belt Conveyor - receives clean coal from BC16A and BC12 (see above) and transfers it to B5	1,600	3,500,000	PE
B5	M 2004 C 1984	Clean Coal Rail Car or Truck Loadout Bin - 150 ton capacity - receives clean coal from BC17, temporarily stores it and then loads it to rail cars or trucks	1,600	3,500,000	FE
Refuse Circuit					
LSSP	C 2012	Limestone Sand Open Storage Pile - 10,000 ton capacity - 21,780 ft^2 base area - receives limestone sand from trucks, stores it and then an endloader transfers it to LSH	300	50,000	N
LSH	C 2012	Limestone Sand Hopper - 21 ton capacity - receives limestone sand from LSSP via and endloader, temporarily and then drops it onto LSBC	300	15,000	PE
LSBC	C 2012	Limestone Sand Belt Conveyor - receives limestone sand from LSH and transfers it to LSRS	300	50,000	PE
LSRS	C 2012	Limestone Sand Radial Stacker - receives limestone sand from LSBC and transfers it to BC10	300	50,000	N
BC10	M 2004 C 1984	Refuse Belt Conveyor - receives refuse from the wet wash circuit and limestone sand from LSRS and transfers it to B4	300	2,628,000	PE
B4	M 2004 C 1984	Refuse Loadout Bin - 75 ton capacity - receives refuse from BC10, stores it temporarily and then loads it to trucks for shipment to the refuse area or it passes through the overflow chute directly to the ground	300	2,628,000	FE
Haulroads					
Raw Coal	C 1984	Raw Coal Truck Traffic - 3.8 miles round trip - Maximum of 23 trips per hour and 146,000 trips per year - 30 ton load weight - Roads sprayed with $CaCl_2$	700	4,380,000	CS
Refuse	C 1984	Refuse Truck Traffic - 3.0 miles round trip - Maximum of 20 trips per hour and 58,667 trips per year - 15 ton load weight - Roads sprayed with $CaCl_2$	300	880,000	CS
Product	C 1984	Product Truck Traffic - 3.8 miles round trip - Maximum of 53 trips per hour and 116,667 trips per year - 30 ton load weight - Roads sprayed with $CaCl_2$	1,600	3,500,000	CS
Endloader/ Dozer	C 1984	Endloader/Dozer Traffic - 0.5 miles round trip - Maximum of 4 trips per hour and 8,760 trips per year - 150 ton mean vehicle weight - Roads sprayed with $CaCl_2$	-----	-----	CS

Equip-ment ID #	Date of Construction, Reconstruction or Modification [1]	Emission Unit Description	Design Capacity		Control Device [2]
			TPH	TPY	
Magnetite	C 2011	Magnetite Truck Traffic - 3.8 miles round trip - Maximum of 4 trips per hour and 48 trips per year - 25 ton load weight - Roads sprayed with $CaCl_2$	50	1,200	CS
Limestone Sand	C 2012	Limestone Sand Truck Traffic - 3.8 miles round trip - Maximum of 12 trips per hour and 2,000 trips per year - 25 ton load weight - Roads sprayed with $CaCl_2$	300	50,000	CS

[1] In accordance with 40 CFR 60 Subpart Y, coal processing and conveying equipment, coal storage systems, and coal transfer and loading systems constructed, reconstructed, or modified after October 27, 1974 but on or before April 28, 2008 shall not discharge gases which exhibit 20 percent opacity or greater. Coal processing and conveying equipment, coal storage systems, and coal transfer and loading systems constructed, reconstructed, or modified after April 28, 2008 shall not discharge gases which exhibit 10 percent opacity or greater. For open storage piles constructed, reconstructed, or modified after May 27, 2009, the permittee shall prepare and operate in accordance with a fugitive coal dust emissions control plan that is appropriate for site conditions.

[2] Control Device Abbreviations: FE - Full Enclosure; PE - Partial Enclosure; PW - Partial Enclosure with Water Sprays; WS - Water Sprays; CS - Water Spray with Chemical Suppressant; and N - None.

SITE INSPECTION

Karl Dettinger of the DAQ's Eastern Panhandle Regional Office performed a full on-site targeted inspection on January 4, 2012. The contact for the facility is Robert Simmons. The following description was taken from the Facility Inpsections Section of AirTrax: "Full compliance evaluation inspection was conducted on 1-4-12. No dust emissions were observed from any of the processing equipment in the wash circuit. The bypass circuit was not in operation at the time of the inspection. There were some minor recordkeeping issues, but they are being taken care of now." The facility was given a Status Code 30 - In Compliance.

Directions from Charleston are to take I-77 North and travel 4.6 miles, merge onto I-79 North and travel 97.9 miles, take Exit 99 for US-33 toward Buckhannon/Elkins and travel 35.0 miles, stay straight to go onto US-219 North and travel 5.6 miles, turn slight left onto US-219/CR-7/Clifton-Nail Run and travel 0.2 miles, take the first right onto US-219 and travel 14.7 miles, turn right onto US-219/1st Street/WV-72 and travel 0.4 miles, turn right onto US-219/Pennsylvania Ave./WV-72 and continue to follow US-219 and travel 13.3 miles, turn right onto WV-32/Spruce Street and travel 2.2 miles, turn left onto WV-93 and travel approximately 16 miles toward Bismarck, WV and turn left onto the plant road near the Tucker/Grant County line.

The plant lies approximately 1.2 miles north of WV State Route 93 near the junction of Laurel Run and the Stony River, close to the Grant/Tucker County line. The access road to the facility is privately owned and treated for dust by Vindex.

ESTIMATE OF EMISSIONS BY REVIEWING ENGINEER

Fugitive emission calculations for continuous and batch drop operations, transfer points, crushing and screening, storage piles, and paved and unpaved haulroads are based on AP-42 Fifth

Edition "Compilation of Air Pollution Emission Factors", Volume 1. Control efficiencies were applied based on "Calculation of Particulate Matter Emission - Coal Preparation Plants and Material Handling Operations." The emission factors for crushing/breaking and screening operations were obtained from the Air Pollution Engineering Manual - Air & Waste Management Association - June 1992. The increase in emissions calculations were performed by the applicant's consultant and were checked for accuracy and completeness by the writer.

The proposed modifications will result in increases in the potential to discharge controlled emissions from point sources of 53.78 pounds per hour and 24.61 TPY of particulate matter (PM), of which 17.89 pounds per hour and 7.51 TPY will be particulate matter less than 10 microns in diameter (PM_{10}) and 2.07 pounds per hour and 0.78 TPY will be particulate matter less than 2.5 microns in diameter ($PM_{2.5}$). Refer to the following table for a summary of the proposed changes in the potential to discharge controlled emissions of PM, PM_{10} and $PM_{2.5}$:

- Proposed Increase in Emissions - **Vindex Energy Corporation R13-1336F**	**Controlled PM Emissions**		**Controlled PM_{10} Emissions**		**Controlled $PM_{2.5}$ Emissions**	
	lb/hour	TPY	lb/hour	TPY	lb/hour	TPY
Fugitive Emissions						
Open Storage Pile Emissions	0.08	0.34	0.04	0.16	0.01	0.02
Unpaved Haulroad Emissions	42.02	23.62	12.29	7.04	1.23	0.71
Paved Haulroad Emissions	0.00	0.00	0.00	0.00	0.00	0.00
Fugitive Emissions Total	42.10	23.96	12.33	7.20	1.24	0.73
Point Source Emissions						
Crushing Emissions	0.00	0.00	0.00	0.00	0.00	0.00
Screening Emissions	0.00	0.00	0.00	0.00	0.00	0.00
Transfer Point Emissions	11.68	0.65	5.56	0.31	0.83	0.05
Magnetite Bin Emissions	0.00	0.00	0.00	0.00	0.00	0.00
Engines SENG and CENG Emissions	0.00	0.00	0.00	0.00	0.00	0.00
Point Source Emissions Total (PTE)	11.68	0.65	5.56	0.31	0.83	0.05
FACILITY EMISSIONS TOTAL	***53.78***	***24.61***	***17.89***	***7.51***	***2.07***	***0.78***

The proposed modification will result in the following new estimated facility-wide potential to discharge controlled PM, PM_{10} and $PM_{2.5}$ emissions:

New Facility-wide Emissions - **Vindex Energy Corporation R13-1336F**	**Controlled PM Emissions**		**Controlled PM_{10} Emissions**		**Controlled $PM_{2.5}$ Emissions**	
	lb/hour	TPY	lb/hour	TPY	lb/hour	TPY
Fugitive Emissions						
Stockpile Emissions	2.17	9.53	1.04	4.54	0.16	0.68
Unpaved Haulroad Emissions	288.23	457.48	83.21	132.08	8.37	13.28
Paved Haulroad Emissions	0.00	0.00	0.00	0.00	0.00	0.00
Fugitive Emissions Total	*330.25*	*481.10*	*95.50*	*139.12*	*9.60*	*13.99*

	Point Source Emissions					
Crushing Emissions	11.40	35.64	5.43	16.97	0.81	2.55
Screening Emissions	14.00	46.80	6.67	22.29	1.00	3.34
Transfer Point Emissions	50.34	42.87	23.97	20.41	3.59	3.07
Magnetite Bin Emissions	1.83	0.03	1.18	0.02	1.18	0.02
Engines SENG and CENG Emissions	0.05	0.22	0.05	0.22	0.05	0.22
Point Source Emissions Total (PTE)	*77.62*	*125.56*	*37.29*	*59.91*	*6.64*	*9.19*
FACILITY EMISSIONS TOTAL	***410.04***	***616.19***	***133.83***	***203.57***	***16.40***	***23.86***

Refer to the following table for the maximum permitted emission rates combined for diesel engines SENG and CENG:

SENG & CENG **Pollutant**	**Hourly Emissions (lb/hour)**	**Annual Emissions (TPY)**
NO_X	1.54	6.75
CO	0.23	1.00
SO_X	0.11	0.49
$PM/PM_{10}/PM_{2.5}$	0.05	0.22
TOC (VOC)	0.15	0.65
HAPS	0.002	0.007

Emissions from the operation of the Portable Screen Engine SENG, which is a Duetz BF4M2012 diesel engine rated at a maximum of 100 HP, were determined using emission rates determined from the manufacturer's emission factors and AP-42 Fifth Edition, Section 3.3. Refer to the following tables for the proposed maximum permitted emission rates which are based a maximum fuel use of 1.91 gallons per hour and 8,760 hours of operation per year:

SENG **Pollutant**	**Emission Factor**		**Hourly Emissions (lb/hour)**	**Annual Emissions (TPY)**
	lb/MMBtu [1]	**g/kWh [2]**		
NO_X	-----	6.68	1.10	4.82
CO	-----	0.83	0.14	0.61
SO_X	0.29	-----	0.07	0.31
$PM/PM_{10}/PM_{2.5}$	-----	0.11	0.02	0.09
TOC (VOC)	0.36	-----	0.09	0.39

[1] Emission factors were taken from AP-42 Fifth Edition, Section 3.3, Table 3.3-1
[2] Manufacturer's emission factors

SENG Pollutant - HAPS	Emission Factor (lb/MMBtu) [1]	Hourly Emissions (lb/hour)	Annual Emissions (TPY)
Benzene	9.33E-04	0.0002	0.0009
Toluene	4.09E-04	0.0001	0.0004
Xylenes	2.85E-04	0.0001	0.0004
1,3-Butadiene	3.91E-05	0.00001	0.0000
Formaldehyde	1.18E-03	0.0003	0.0013
Acetaldehyde	7.67E-04	0.0002	0.0009
Acrolein	9.25E-05	0.00002	0.0001
Naphthalene	8.48E-05	0.00002	0.0001
	Total HAPS	**0.0010**	**0.0040**

[1] Emission factors were taken from AP-42 Fifth Edition, Section 3.3, Table 3.3-2

Emissions from the operation of the Portable Crusher Engine CENG rated at a maximum of 60 HP were determined using emission rates determined from AP-42 Fifth Edition, Section 3.3. Refer to the following tables for the proposed maximum permitted emission rates which are based a maximum fuel use of 1.15 gallons per hour and 8,760 hours of operation per year:

CENG Pollutant	Emission Factor (lb/MMBtu) [1]	Hourly Emissions (lb/hour)	Annual Emissions (TPY)
NO_X	4.41	0.44	1.93
CO	0.95	0.09	0.39
SO_X	0.29	0.04	0.18
$PM/PM_{10}/PM_{2.5}$	0.31	0.03	0.13
TOC (VOC)	0.36	0.06	0.26

[1] Emission factors were taken from AP-42 Fifth Edition, Section 3.3, Table 3.3-1

CENG Pollutant - HAPS	Emission Factor (lb/MMBtu) [1]	Hourly Emissions (lb/hour)	Annual Emissions (TPY)
Benzene	9.33E-04	0.0001	0.0004
Toluene	4.09E-04	0.0001	0.0004
Xylenes	2.85E-04	0.0001	0.0005
1,3-Butadiene	3.91E-05	0.00001	0.0001
Formaldehyde	1.18E-03	0.0002	0.0009
Acetaldehyde	7.67E-04	0.0001	0.0004
Acrolein	9.25E-05	0.00001	0.0001
Naphthalene	8.48E-05	0.00001	0.0001
	Total HAPS	**0.0010**	**0.0030**

[1] Emission factors were taken from AP-42 Fifth Edition, Section 3.3, Table 3.3-2

REGULATORY APPLICABILITY

NESHAPS and PSD have no applicability to the facility. The proposed modification of a wet wash coal preparation plant will be subject to the following state and federal rules:

45CSR5 To Prevent and Control Air Pollution from the Operation of Coal Preparation Plants and Coal Handling Operations

The facility is subject to the requirements of 45CSR5 because it meets the definition of "Coal Preparation Plant" found in subsection 45CSR5.2.4. The facility should be in compliance with Section 3 (less than 20% opacity) and Section 6 (fugitive dust control system and dust control of the premises and access roads) when the particulate matter control methods and devices proposed within application R13-1336F and any amendments thereto are in operation.

45CSR7 To Prevent and Control Particulate Matter Air Pollution from Manufacturing Processes and Associated Operations

45CSR7 applies to "source operations" located at "manufacturing processes" that, excluding those manufacturing processes specified under §45-7-10.5 and §45-7-10.6, have the potential to emit particulate matter and acid gases. The facility is subject to the requirements of 45CSR7 because it meets the definition of a "manufacturing process" as defined in Section 2.20. The source operations subject to 45CSR7 are the transport and loading of magnetite used in the wet wash circuit.

Section 3.1 of 45CSR7 sets an opacity limit of 20% on all applicable source operations. The facility should be in compliance with this requirement because magnetite bins MB1 and MB2 are each equipped with a filter vent with a 95% control efficiency.

Section 4.1 of 45CSR7 requires that each manufacturing process meet a particulate matter stack emission limit based on the weight of material processed through the source operation. The emission limits are given under Table 45-7A and are based on the type source operation as defined in this Rule. The source operation subject to this standard is the pneumatic filling of magnetite bins MB1 and MB2. This operation is controlled by the use of a filter vent with a 95% control efficiency.

Under Section 2.39 of 45CSR7, this operation would be defined as a "type 'a'" source operation. Based on the maximum magnetite throughput of 100,000 pounds/hour (50 TPH), the maximum allowable emission of 33.0 pounds per hour is derived from Table 45-7A. The maximum potential emissions associated with filling magnetite bin MB1 or MB2 will be 1.20 pounds/hour, or approximately 3.6% of the maximum allowable emission rate. Therefore, the facility should be in compliance with this requirement.

Section 5.1 of 45CSR7 states that each manufacturing process must include a system to minimize the emissions of fugitive particulate matter. Magnetite bin MB1 and MB2 are each equipped with a filter vent with a 95% control efficiency.

Section 5.2 of 45CSR7 states that the owner or operator of a plant shall maintain particulate matter control of the plant premises, and plant owned, leased or controlled access roads, and use good operating practices in relation to stockpiling and general material handling to minimize particulate matter generation and atmospheric entrainment. The only fugitive source of emissions from the magnetite circuit are the unpaved haulroads (when being used to transport magnetite into the facility). The facility has proposed the use of a water truck applying a combination of water and $CaCl_2$ to minimize emissions from the unpaved haulroads and work areas and it should be in compliance with this requirement.

45CSR13 Permits for Construction, Modification, Relocation and Operation of Stationary Sources of Air Pollutants, Notification Requirements, Temporary Permits, General Permits, and Procedures for Evaluation

The proposed modification is subject to the requirements of 45CSR13 because it will result in an increase in potential controlled emissions greater than six (6) pounds per hour and ten (10) tons per year of a regulated air pollutant (PM). The applicant has submitted an application for a modification permit. The applicant published a Class I legal advertisement in *Grant County Press* on January 17, 2012 and submitted $1,000 for the application fee and $1,000 for the NSPS fee.

45CSR16 Standards of Performance for New Stationary Sources
40 CFR 60 Subpart Y: Standards of Performance for Coal Preparation and Processing Plants

This wet wash coal preparation plant is subject to 40 CFR 60 Subpart Y because it was constructed and will be modified after October 24, 1974 and processes more than 200 tons of coal per day.

The facility should be in compliance with the following: Section 254(a) (less than 20% opacity for coal processing and conveying equipment, coal storage systems, or coal transfer and loading systems processing coal constructed, re-constructed or modified on or before April 28, 2008); and Section 254(b) (less than 10% opacity for coal processing and conveying equipment, coal storage systems, or coal transfer and loading systems processing coal constructed, re-constructed or modified after April 28, 2008) when the particulate matter control methods and devices proposed are in operation.

The owner or operator of an open storage pile, which includes the equipment used in the loading, unloading, and conveying operations of the affected facility, constructed, reconstructed, or modified after May 27, 2009, must prepare and operate in accordance with a submitted fugitive coal dust emissions control plan that is appropriate for the site conditions. The fugitive coal dust emissions control plan must identify and describe the control measures the owner or operator will use to minimize fugitive coal dust emissions from each open storage pile. The plan must be submitted to the Director prior to startup of

the new, reconstructed or modified open storage pile.

45CSR16 Standards of Performance for New Stationary Sources
40 CFR 60 Subpart IIII: Standards of Performance for Stationary Compression Ignition Internal Combustion Engines

The provisions of Subpart IIII are applicable to owners and operators of stationary compression ignition (CI) internal combustion engines (ICE) which are manufactured after April 1, 2006, are not fire pump engines and commence construction after July 11, 2005. For the purposes of Subpart IIII, the date that construction commences is the date the engine is ordered by the owner or operator.

The portable crushing unit was built by Eagle Iron Works in 1977 and is equipped with a diesel engine CENG with a maximum of 60 HP (or 44.742 KW) and fuel usage of 1.15 gallons per hour. In accordance with § 60.4200 (2), this engine is not subject to Subpart IIII because it was manufactured on or before April 1, 2006 and commenced construction on or before July 11, 2005.

The Terex Finley 693 Supertrak portable screening unit was built in 2012 and is equipped with a diesel engine SENG, which is a Duetz BF4M 2012 with a maximum of 100 HP (or 74.9 KW) and fuel usage of 1.91 gallons per hour. In accordance with § 60.4200 (2), this engine is subject to Subpart IIII because it was manufactured after April 1, 2006 and commenced construction after July 11, 2005.

In accordance with § 60.4207(b), "Beginning October 1, 2010, owners and operators of stationary CI ICE subject to this subpart with a displacement of less than 30 liters per cylinder that use diesel fuel must use diesel fuel that meets the requirements of 40 CFR 80.510(b) for nonroad diesel fuel."

40 CFR 89 Control of Emissions From New and In-use Nonroad Compression-Ignition Engines

This part applies to all compression-ignition nonroad engines except those specified in paragraph (b) of this section. This means that the engines for which this part applies include but are not limited to compression-ignition engines exempted from the requirements of 40 CFR Part 92 by 40 CFR 92.207 or 40 CFR Part 94 by 40 CFR 94.907. This part applies as specified in 40 CFR part 60 subpart IIII, to compression-ignition engines subject to the standards of 40 CFR part 60, subpart IIII.

45CSR17 To Prevent and Control Particulate Matter Air Pollution from Materials Handling, Preparation, Storage and Other Sources of Fugitive Particulate Matter

Section 2.4 of 45CSR17 defines materials to include, but is not limited to, "limestone, dolomite, iron ore, slag, coke, coal, sandstone, magnetite, sinter, sand, coal refuse, soda ash, ash, cement or earth." Therefore, the limestone sand open storage pile LSSP, dump hopper LSH and conveyors LSBC and LSRS are subject to 45CSR17.

Section 3.1. of 45CSR17 states "No person shall cause, suffer, allow or permit fugitive particulate matter to be discharged beyond the boundary lines of the property on which the discharge originates or at any public or residential location, which causes or contributes to statutory air pollution."

Section 3.2. of 45CSR17 states "When a person is found in violation of this rule, the Director may require the person to utilize a system to minimize fugitive particulate matter. This system to minimize fugitive particulate matter may include, but is not limited to, the following:

3.2.a. Use, where practicable, of water or chemicals for control of particulate matter in demolition of existing buildings or structures, construction operations, grading of roads or the clearing of land;

3.2.b. Application of asphalt, water or suitable chemicals on unpaved roads, material stockpiles and other surfaces which can create airborne particulate matter;

3.2.c. Covering of material transport vehicles, or treatment of cargo, to prevent contents from dripping, sifting, leaking or otherwise escaping and becoming airborne, and prompt removal of tracked material from roads or streets; or

3.2.d. Installation and use of hoods, fans and fabric filters to enclose and vent the handling of materials, including adequate containment methods during sandblasting, abrasive cleaning or other similar operations."

45CSR30 Requirements for Operating Permits

In accordance with 45CSR30 Major Source Determination, this wet wash coal preparation plant is not listed in 45CSR30 subsection 2.26.b as one of the categories of stationary sources which must include fugitive emissions (open storage piles constructed or modified on or before May 27, 2009 and haulroads) when determining whether it is a major stationary source for the purposes of § 302(j) of the Clean Air Act. The facility's new potential to emit will be 59.91 TPY for PM_{10} (open storage piles constructed or modified after May 27, 2009 and point sources combined), which is less than the 45CSR30 threshold of 100 TPY of a regulated air pollutant used to define a major stationary source. Therefore, the facility will be subject to 45CSR30 and remain classified as a Title V deferred non-major source.

The proposed modification of a wet wash coal preparation plant will <u>not</u> be subject to the following state and federal rules:

45CSR14 Permits for Construction and Major Modification of Major Stationary Sources of Air Pollution for the Prevention of Significant Deterioration

In accordance with 45CSR14 Major Source Determination, this wet wash coal preparation plant is not one of the 100 TPY stationary sources listed under the definition of "Major Stationary Source" in subsection 2.43.a. Therefore, it must have the potential to emit 250

TPY or more of any regulated pollutant to meet the definition of a major source in subsection 2.43.b. At the end of subsection 2.4.3, this facility is not listed in Table 1 - Source Categories Which Must Include Fugitive Emissions. So, fugitive emissions (from open storage piles constructed or modified on or before May 27, 2009 and haulroads) are not included when determining major stationary source applicability. The facility's new potential to emit will be 125.56 TPY for PM (open storage piles constructed or modified after May 27, 2009 and point sources combined), which is less than the 45CSR14 threshold of 250 TPY for a regulated air pollutant used to define a major stationary source. Therefore, the proposed modification is not subject to the requirements set forth within 45CSR14.

40 CFR 63 Subpart ZZZZ: National Emission Standards for Hazardous Air Pollutants for Stationary Reciprocating Internal Combustion Engines

Unless otherwise stated, WVDEP DAQ did not determine whether the registrant is subject to an area source air toxics standard requiring Generally Achievable Control Technology (GACT) promulgated after January 1, 2007 pursuant to 40 CFR 63, including the area source air toxics provisions of 40 CFR 63, Subpart ZZZZ.

TOXICITY OF NON-CRITERIA REGULATED POLLUTANTS

Other than particulate matter, the only non criteria regulated pollutants that are addressed by this permit application are the relatively small amount (less than 14 pounds per year) of Hazardous Air Pollutants that are the normal byproduct of diesel combustion.

Acetaldehyde:
Acetaldehyde is mainly used as an intermediate in the synthesis of other chemicals. It is ubiquitous in the environment and may be formed in the body from the breakdown of ethanol. Acute (short-term) exposure to acetaldehyde results in effects including irritation of the eyes, skin, and respiratory tract. Symptoms of chronic (long-term) intoxication of acetaldehyde resemble those of alcoholism. Acetaldehyde is considered a probable human carcinogen (Group B2) based on inadequate human cancer studies and animal studies that have shown nasal tumors in rats and laryngeal tumors in hamsters.

Acrolein:
Acrolein is primarily used as an intermediate in the synthesis of acrylic acid and as a biocide. It may be formed from the breakdown of certain pollutants in outdoor air or from the burning of organic matter including tobacco, or fuels such as gasoline or oil. It is toxic to humans following inhalation, oral or dermal exposures. Acute (short-term) inhalation exposure may result in upper respiratory tract irritation and congestion. No information is available on its reproductive, developmental, or carcinogenic effects in humans, and the existing animal cancer data are considered inadequate to make a determination that acrolein is carcinogenic to humans.

Benzene:
Benzene is found in the air from emissions from burning coal and oil, gasoline service stations, and motor vehicle exhaust. Acute (short-term) inhalation exposure of humans to benzene may cause

drowsiness, dizziness, headaches, as well as eye, skin, and respiratory tract irritation, and, at high levels, unconsciousness. Chronic (long-term) inhalation exposure has caused various disorders in the blood, including reduced numbers of red blood cells and aplastic anemia, in occupational settings. Reproductive effects have been reported for women exposed by inhalation to high levels, and adverse effects on the developing fetus have been observed in animal tests. Increased incidence of leukemia (cancer of the tissues that form white blood cells) have been observed in humans occupationally exposed to benzene. EPA has classified benzene as a Group A, human carcinogen.

Formaldehyde:
Formaldehyde is used mainly to produce resins used in particle board products and as an intermediate in the synthesis of other chemicals. Exposure to formaldehyde may occur by breathing contaminated indoor air, tobacco smoke, or ambient urban air. Acute (short-term) and chronic (long-term) inhalation exposure to formaldehyde in humans can result in respiratory symptoms, and eye, nose, and throat irritation. Limited human studies have reported an association between formaldehyde exposure and lung and nasopharyngeal cancer. Animal inhalation studies have reported an increased incidence of nasal squamous cell cancer. EPA considers formaldehyde a probable human carcinogen (Group B1).

Naphthalene:
Naphthalene is used in the production of phthalic anhydride; it is also used in mothballs. Acute (short-term) exposure of humans to naphthalene by inhalation, ingestion, and dermal contact is associated with hemolytic anemia, damage to the liver, and neurological damage. Cataracts have also been reported in workers acutely exposed to naphthalene by inhalation and ingestion. Chronic (long-term) exposure of workers and rodents to naphthalene has been reported to cause cataracts and damage to the retina. Hemolytic anemia has been reported in infants born to mothers who "sniffed" and ingested naphthalene (as mothballs) during pregnancy. Available data are inadequate to establish a causal relationship between exposure to naphthalene and cancer in humans. EPA has classified naphthalene as a Group C, possible human carcinogen.

Toluene:
The acute toxicity of toluene is low. Toluene may cause eye, skin, and respiratory tract irritation. Short-term exposure to high concentrations of toluene (e.g., 600 ppm) may produce fatigue, dizziness, headaches, loss of coordination, nausea, and stupor; 10,000 ppm may cause death from respiratory failure. Ingestion of toluene may cause nausea and vomiting and central nervous system depression. `Contact of liquid toluene with the eyes causes temporary irritation. Toluene is a skin irritant and may cause redness and pain when trapped beneath clothing or shoes; prolonged or repeated contact with toluene may result in dry and cracked skin. Because of its odor and irritant effects, toluene is regarded as having good warning properties. The chronic effects of exposure to toluene are much less severe than those of benzene. No carcinogenic effects were reported in animal studies. Equivocal results were obtained in studies to determine developmental effects in animals. Toluene was not observed to be mutagenic in standard studies.

Xylene:
Commercial or mixed xylene usually contains about 40-65% m-xylene and up to 20% each of o-xylene and p-xylene and ethyl benzene. Xylenes are released into the atmosphere as fugitive emissions from industrial sources, from auto exhaust, and through volatilization from their use as

solvents. Acute (short-term) inhalation exposure to mixed xylenes in humans results in irritation of the eyes, nose, and throat, gastrointestinal effects, eye irritation, and neurological effects. Chronic (long-term) inhalation exposure of humans to mixed xylenes results primarily in central nervous system (CNS) effects, such as headache, dizziness, fatigue, tremors, and incoordination; respiratory, cardiovascular, and kidney effects have also been reported. EPA has classified mixed xylenes as a Group D, not classifiable as to human carcinogenicity.

AIR QUALITY IMPACT ANALYSIS

Air dispersion modeling was not performed due to the nature and extent of the modifications proposed for this existing facility. This facility is located in Grant County, WV, which is currently in attainment for PM (particulate matter) and PM_{10} (particulate matter less than 10 microns in diameter). This facility is not a major source as defined by 45CSR14, therefore, an air quality impact analysis is not required.

MONITORING OF OPERATIONS

For the purposes of determining compliance with maximum throughput limits, the applicant shall maintain certified daily and monthly records with example forms included as Appendices A and B to Permit R13-1336F. An example form for tracking the amount of diesel fuel used by engines CENG and SENG is included as Appendix C to Permit R13-1336F. An example form for tracking the amount of water applied through the water truck is included as Appendix D to Permit R13-1336F. An example form for the Monthly Opacity Testing is included as Appendix E to Permit R13-1336F. The Certification Of Data Accuracy statement shall be completed within fifteen (15) days of the end of the reporting period. These records shall be maintained on site by the permittee for at least five (5) years and shall be made available to the Director of the Division of Air Quality or his or her duly authorized representative upon request.

The owner or operator of an open storage pile, which includes the equipment used in the loading, unloading, and conveying operations of the affected facility, constructed, reconstructed, or modified after May 27, 2009, must prepare and operate in accordance with a submitted fugitive coal dust emissions control plan that is appropriate for the site conditions. The fugitive coal dust emissions control plan must identify and describe the control measures the owner or operator will use to minimize fugitive coal dust emissions from each open storage pile. The plan must be submitted to the Director prior to startup of the new, reconstructed or modified open storage pile.

CHANGES TO CURRENT PERMIT R13-1336E

- Modified Section 1.0 Emission Units table to include open storage pile LSSP, dump hopper LSH, and conveyors LSBC and LSRS
- Modified Section 2.5.1 to include application R13-1336F
- Modified Sections 4.1.9 through 4.1.13 regarding 45CSR7 rules to include limestone sand handling

- Added Sections 4.1.14 and 4.1.15 for the handling of limestone sand, which is subject to 45CSR17

RECOMMENDATION TO DIRECTOR

The information contained in this modification permit application indicates that compliance with all applicable regulations should be achieved when all of the proposed particulate matter control methods are in operation. Due to the location, nature of the process, and control methods proposed, adverse impacts on the surrounding area should be minimized. Therefore, the granting of a permit to Vindex Energy Corporation for the modification of their existing Dobbin Ridge Preparation Plant located near Bismarck, Grant County, WV is hereby recommended.

Daniel P. Roberts, Engineer Trainee
NSR Permitting Section

November 16, 2012
Date